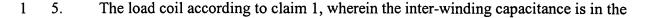
What is claimed is:

1	1/.	A load coil,	comprising

- 2 a coupled inductor having a first winding having a first intra-winding capacitance
- 3 and a second winding having a second intra-winding capacitance, the first and second
- 4 windings wound about an inductor core, the first and second windings having an inter-
- 5 winding capacitance;
- a first capacitor disposed in parallel with the first winding and a second capacitor
- 7 disposed in parallel with the second winding for increasing the impedance of the load coil
- 8 to certain signals above 4 kHz.
- 1 2. The load coil according to claim 1, wherein a ratio of the inter-winding
- 2 capacitance to the combined capacitance of the first intra-winding capacitance and the
- 3 first capacitor is in the range of 0.75 1.25.
- 1 3. The load coil according to claim 1, wherein a ratio of the inter-winding
- 2 capacitance to the combined capacitance of the first intra-winding capacitance and the
- 3 first capacitor is in the range of 0.99 1.01.
- 1 4. The load coil according to claim 1, wherein the first and second capacitors each
- 2 have a capacitance in the range of 770 1290 pF.



- 2 range of 1,030 1,050 pF and the capacitance of each of the first and second capacitors is
- 3 in the range of $770 1290 \, pF$.
- 1 6. The load coil according to claim 1, wherein the certain signals above 4 kHz
- 2 further comprise signals in the range of 25 kHz 1.1 MHz.
- 1 1. A load coil, comprising:
- a coupled inductor having an inter-winding capacitance, an intra-winding
- 3 capacitance, and an inductance;
- 4 the ratio of the inter-winding capacitance to the intra-winding capacitance being
- 5 in the range of about 0.75 1.25 for increasing the impedance of the load coil to signals
- 6 in the range of 25 kHz 1.1 MHz.
- 1 8. The load coil according to claim 7, wherein the ratio of the inter-winding
- 2 capacitance to the intra-winding capacitance is in the range of about 0.99 to 1.01

1	9. A load coil, comprising:
2	a first inductor including a first winding and a first core, the first winding having
3	upstream and downstream ends and a first intra-winding capacitance;
4	a second inductor including a second winding and a second core, the second
5	winding having upstream and downstream ends and having a second intra-winding
6	capacitance;
7	a first capacitor disposed between the upstream end of the first inductor and the
8	downstream end of the second inductor to offset at least a portion of the first and second
9	intra-winding capacitances for improving the impedance of the load coil to DSL-band
0	signals; and
1	a second capacitor disposed between the upstream end of the second inductor and
2	the downstream end of the first inductor to offset at least a portion of the first and second
3	intra-winding capacitances for improving the impedance of the load coil to DSL-band
4	signals.
1	10. A load coil for being coupled to a local loop to improve transmission of POTS
2	band signals over the local loop, comprising:
3	a first inductor having a first winding and a first core, the first inductor for
4	improving transmission of POTS band signals on a first wire of the local loop; and
5	a second inductor having a second winding and a second core for improving
6	transmission of POTS hand signals on a second wire of the local loop

- A DSL repeater for improving transmission of POTS band and DSL band signals
 over a local loop, the repeater comprising:
 an upstream signal amplifier for amplifying upstream DSL signals;
 a downstream signal amplifier for amplifying downstream DSL signals; and
 a load coil disposed in parallel with the upstream and downstream signal
- 6 amplifiers for improving the transmission of POTS band signals over the local loop.
- 1 12. The DSL repeater according to claim 11, wherein the load coil further comprises:
- 2 a coupled inductor having a first winding having a first intra-winding capacitance
- 3 and a second winding having a second intra-winding capacitance, the first and second
- 4 windings wound about an inductor core, the first and second windings having an inter-
- 5 winding capacitance;
- a first capacitor disposed in parallel with the first winding and a second capacitor
- 7 disposed in parallel with the second winding for increasing the impedance of the load coil
- 8 to the upstream and downstream DSL signals.
- 1 13. The DSL repeater according to claim 12, wherein a ratio of the inter-winding
- 2 capacitance to the combined capacitance of the first intra-winding capacitance and the
- 3 first capacitor is in the range of 0.75 1.25.
- 1 14. The DSL repeater according to claim 12, wherein a ratio of the inter-winding
- 2 capacitance to the combined capacitance of the first intra-winding capacitance and the
- 3 first capacitor is in the range of 0.99 1.01.



- 2 each have a capacitance in the range of 770 1290 pF.
- 1 16. The DSL repeater according to claim 12, wherein the inter-winding capacitance is
- in the range of 1,030 1,050 pF and the capacitance of each of the first and second
- 3 capacitors is in the range of 770 1290 pF.
- 1 17. The DSL repeater according to claim 11, wherein the load coil further comprises:
- a first inductor having a first winding and a first core, the first inductor for
- 3 improving transmission of POTS band signals on a first wire of the local loop; and
- 4 a second inductor having a second winding and a second core for improving
- 5 transmission of POTS band signals on a second wire of the local loop.

1	18. The DSL repeater according to claim 11, wherein the load coil further comprises:
2	a first inductor including a first winding and a first core, the first winding having
3	upstream and downstream ends and a first intra-winding capacitance;
4	a second inductor including a second winding and a second core, the second
5	winding having upstream and downstream ends and having a second intra-winding
6	capacitance;
7	a first capacitor disposed between the upstream end of the first inductor and the
8	downstream end of the second inductor to offset at least a portion of the first and second
9	intra-winding capacitances for improving the impedance of the load coil to DSL-band
10	signals; and
11	a second capacitor disposed between the upstream end of the second inductor and
12	the downstream end of the first inductor to offset at least a portion of the first and second
13	intra-winding capacitances for improving the impedance of the load coil to DSL-band
14	signals.